

**Before the
Federal Communications Commission
Washington, DC 20554**

In the Matter of)	
)	
Fixed and Mobile Services in the Mobile)	ET Docket No. 10-142
Satellite Service Bands at 1525-1559 MHz)	
and 1626.5-1660.5 MHz, 1610-1626.5 MHz)	
and 2483.5-2500 MHz, and 2000-2020 MHz)	
and 2180-2200 MHz)	
)	
Service Rules for Advanced Wireless)	WT Docket No. 04-356
Services in the 1915-1920 MHz, 1995-2000)	
MHz, 2020-2025 MHz and 2175-2180 MHz)	
Bands)	
)	
Service Rules for Advanced Wireless)	WT Docket No. 07-195
Services in the 2155-2175 MHz Band)	
)	
Spectrum Task Force Invites Technical Input)	
on Approaches to Maximize Broadband Use)	
of Fixed/Mobile Spectrum Allocations in the)	
2 GHz Range)	

COMMENTS OF TERRESTAR NETWORKS INC.

TerreStar Networks Inc., Debtor-in-Possession (“TerreStar”) welcomes the opportunity to comment in response to the Spectrum Task Force’s Public Notice in this proceeding.¹ The Notice seeks comment on “technical input” and “voluntary

¹ See Public Notice, “Spectrum Task Force Invites Technical Input on Approaches to Maximize Broadband Use of Fixed/Mobile Spectrum Allocations in the 2 GHz Range,” DA 11-929 (rel. May 20, 2011) (“Notice”). On October 19, 2010, TerreStar Networks Inc. and certain of its affiliates (collectively “Debtors”) filed voluntary petitions for relief under Chapter 11 of the United States Bankruptcy Code in the United States Bankruptcy Court for the Southern District of New York. See *TerreStar Networks Inc.*, Case No. 10-15446 (SHL) (SDNY Oct. 19, 2010). On May 4, the Bankruptcy Court approved the auction of the Debtors out of bankruptcy. See *TerreStar Networks Inc.*, Case No. 10-
(continued on next page)

approaches” to advance terrestrial mobile broadband use in the 2 GHz band, including the 2 GHz Mobile Satellite Service (“MSS”) bands at 2000-2020 MHz and 2180-2200 MHz.² In response, TerreStar believes it useful to resurface a long-documented technical issue in the current 2 GHz band plan, and wishes to support the Notice’s goal of exploring “voluntary approaches” to “encourage the growth of terrestrial mobile broadband services in the 2 GHz range.”³

INTRODUCTION

TerreStar’s wholly-owned subsidiary, TerreStar License Inc., holds a letter of intent (“LOI”) authorization, originally granted in 2001, to provide MSS in the United States using spectrum in the 2 GHz band via TerreStar-1, a geostationary orbit satellite launched in July 2009.⁴ TerreStar also has blanket authority to operate Ancillary

15446 (SHL) (SDNY May 4, 2010). On June 22, 2011, the Bankruptcy Court approved the execution by the Debtors of a pre-auction stalking horse purchase agreement pursuant to which the debtors agree to be acquired by Gamma Acquisition L.L.C. (“Gamma”), a wholly owned subsidiary of Dish Network Corporation. *See TerreStar Networks Inc.*, Case No. 10-15446 (SHL) (SDNY June 22, 2010). No other timely bids to purchase the Debtors were received by the Debtors and, as a result, the Debtors cancelled the auction on June 28, 2011. On July 7, 2011, the Bankruptcy Court approved the sale of the Debtors to Gamma. *See TerreStar Networks Inc.*, Case No. 10-15446 (SHL) (SDNY July 7, 2011). The parties intend to file with the Commission forthwith appropriate applications to seek Commission consent for the proposed transaction.

² Notice at 1, 3.

³ *Id.* at 1.

⁴ *See TMI Communications and Company, Limited Partnership, and TerreStar Networks, LLC, Order*, 22 FCC Rcd 8602 (IB 2007); *TMI Communications and Company, Limited Partnership, Order*, 16 FCC Rcd 13808 (2001); *TMI Communications and Company, Limited Partnership, and TerreStar Networks, Inc. Application for Review and Request for Stay, Memorandum Opinion and Order*, 19 FCC Rcd 12603 (2004).

Terrestrial Component (“ATC”) base stations and dual-mode MSS-ATC mobile terminals.⁵

Today, TerreStar offers an all IP next-generation mobile broadband network through a combination of the power of TerreStar-1, an all-IP core network, and the latest in a smartphone form factor. In September 2010, TerreStar began providing commercial service as a wholesale provider of satellite roaming to AT&T Mobility, using the world’s first and only integrated satellite-terrestrial smartphone, the GENUS™. AT&T markets the GENUS™ smartphone, enabling AT&T enterprise, government and small business customers to add satellite access as a roaming option to AT&T’s terrestrial mobile service. As a result, TerreStar’s 2 GHz MSS service is now available to AT&T customers in unserved and underserved locations and as back-up capacity for public safety agencies, first responders and others during times of crisis when the terrestrial wireless network may be unavailable.

DISCUSSION

TerreStar supports the consideration 2 GHz band plans that can “increase opportunities for successful use of 2 GHz spectrum for terrestrial mobile broadband.”⁶ At the same time, TerreStar welcomes the Spectrum Task Force’s statement that “we recognize the Commission’s intent to ensure that the U.S. market, as a whole, continues to have robust MSS capabilities to serve critical public safety, homeland security, and

⁵ See *TerreStar Networks Inc., Order and Authorization*, 25 FCC Rcd 228 (IB 2010).

⁷ See *id.* at 1 n. 2.

rural needs.”⁷ In these comments, TerreStar identifies interference challenges that should be considered in the 2 GHz band. In addition, TerreStar supports the consideration of voluntary approaches to maximize terrestrial broadband use of the 2 GHz MSS band.

First, the Notice specifically seeks comment on technical matters and interference challenges related to possible 2 GHz band plans.⁸ In this regard, TerreStar notes that the Commission has previously proposed to designate the AWS H-Block (1995-2000 MHz) as a cellular base station downlink band,⁹ while the adjacent MSS S-Band (2000-2020 MHz) has been designated as an ATC and MSS uplink band.¹⁰ TerreStar’s existing MSS and future ATC uplink operate in the 2000-2010 MHz spectrum.

TerreStar is not aware of another case where a base station downlink band operates adjacent to a mobile terminal uplink band. The juxtaposition of uplink and downlink bands in adjacent spectrum creates unique interference issues, including the

⁷ See *id.* at 1 n. 2.

⁸ *Id.* at 3.

⁹ See *Service Rules for Advanced Wireless Services in the 2155-2175 MHz Band; Service Rules for Advanced Wireless Services in the 1915-1920 MHz, 1995-2000 MHz, 2020-2025 MHz and 2175-2180 MHz Bands*, Further Notice of Proposed Rulemaking, 23 FCC Rcd 9859, 9861 ¶ 4 (2008) (“*AWS Further Notice*”) (proposing to “[p]rohibit mobile transmission in the 1995-2000 MHz band”); *Service Rules for Advanced Wireless Services in the 1915-1920 MHz, 1995- 2000 MHz, 2020-2025 MHz and 2175-2180 MHz Bands*, Notice of Proposed Rulemaking, 19 FCC Rcd 19263, 19305 ¶ 110 (2004) (“[W]e tentatively conclude that licensees authorized in the 1995-2000 MHz band should be required to operate base or fixed stations only.”) (“*AWS Notice*”); *Amendment of Part 15 of the Commission’s Rules Regarding Unlicensed Personal Communications Service Devices in the 1920-1930 MHz Band*, Notice of Proposed Rulemaking, 25 FCC Rcd 5118, 5124 n.40 (2010) (“Under the proposed rules in the [*AWS Notice*], AWS-2 base station (*i.e.*, downlink) transmissions would be restricted to the 1995-2000 MHz band.”)

¹⁰ See *AWS Notice*, 19 FCC Rcd at 19300 ¶ 94 (“Located just above the 1995-2000 MHz band is the 2000-2020 MHz band, which is designated for MSS/ATC uplink/mobile transmissions.”).

risk of H-Block base station transmitters interfering with the MSS satellite and ATC base stations.¹¹ This risk of interference is well known to the Commission,¹² and has been a matter of public record for more than six years.¹³ These issues should be taken into account when considering potential 2 GHz band plans.¹⁴

Second, as a provider of 2 GHz MSS services and holder of ATC authority, TerreStar is supportive of the National Broadband Plan's finding that the Commission should take actions that "will optimize license flexibility sufficient to increase terrestrial broadband use of MSS spectrum."¹⁵ For example, TerreStar supported the decision to

¹¹ The interference scenarios also include S-Band mobile terminal transmitters interfering with H-Block mobile terminal receivers.

¹² See *AWS Notice*, 19 FCC Rcd at 19300 ¶¶ 94-95 (expressing concern about "the possibility that base stations operating in the 1995-2000 MHz band could cause harmful interference to MSS satellite receivers," "the possibility of interference from base stations operating in the 1995-2000 MHz band to ATC base stations receiving in the 2000-2020 MHz band," and "interference from ATC/MSS mobiles to mobiles receiving in the 1995-2000 MHz band").

¹³ See, e.g., Comments of TerreStar Networks Inc., WT Docket Nos. 04-356 & 02-353, at 1-7 & Appendices A-B (filed Dec. 8, 2004); Comments of TerreStar Networks Inc., WT Docket No. 03-264, at 2-5 (Dec. 19, 2005); Comments of TerreStar Networks Inc., WT Docket Nos. 04-356 and 07-195, at 2, 6-7 (July 25, 2008); *Ex Parte* from Joseph A. Godles, Attorney for TerreStar Networks Inc., to Marlene H. Dortch, Secretary, FCC, at 1 (June 2, 2008); Comments of New ICO Satellite Services G.P., WT Docket Nos. 04-356 and 07-195, at 2-5 & Exhibit A (July 25, 2008); *Ex Parte* from Suzanne Hutchings Malloy, Senior V.P., Regulatory Affairs, ICO Global Communications, to Marlene H. Dortch, Secretary, FCC, Att. 1 at 3-6 (July 3, 2008).

¹⁴ TerreStar notes that the European Conference of Postal and Telecommunications Administrations ("CEPT") has considered similar issues in the 2600 MHz band involving uplink and downlink operations and concluded that a 5 GHz frequency separation, used for pico cell deployments with low-power base stations, would address interference issues. See *Official Journal of the European Union*, Commission Decision on the Harmonization of the 2500-2690 MHz Frequency Band for Terrestrial Systems Capable of Providing Electronic Communications Services in the Community (June 13, 2008).

¹⁵ Connecting America: The National Broadband Plan, at 87 (Mar. 2010).

apply secondary market spectrum leasing policies to MSS/ATC leasing arrangements,¹⁶ which creates opportunities for “significant flexibility for the provision of terrestrial mobile broadband as part of an MSS/ATC service offering.”¹⁷ TerreStar also supported the recent addition of co-primary Fixed and Mobile allocations to the 2 GHz MSS band as a way of laying the groundwork for future flexibility,¹⁸ noting that “additional flexibility is perhaps the single most important measure the FCC can take to facilitate the provision of broadband services in MSS bands.”¹⁹ Together, these steps help establish a regulatory framework for providers to optimize the use of MSS spectrum.

Building on these initial steps, TerreStar supports the Spectrum Task Force’s inquiry into other steps that can advance the use of MSS spectrum for terrestrial broadband services. In considering other options with respect to the 2 GHz MSS band, TerreStar strongly agrees with the Notice that the “emphasis” must be on “voluntary approaches.”²⁰ Ultimately, it is private sector investment that can optimize use of the band, but only if the marketplace is permitted to make rational choices with regard to service deployment.

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¹⁶ See Comments of TerreStar Networks Inc., ET Docket No. 10-142, at i (Sept. 15, 2010) (“TerreStar Comments”).

¹⁷ See *Fixed and Mobile Services in the Mobile Satellite Service Bands at 1525-1559 MHz and 1626.5-1660.5 MHz, 1610-1626.5 MHz and 2483.5-2500 MHz and 2000-2020 MHz and 2180-2200 MHz, Report and Order*, 26 FCC Rcd 5710, 5717 ¶ 16 (2011) (“MSS R&O”).

¹⁸ See *id.* at 5714 ¶ 8.

¹⁹ See TerreStar Comments at i.

²⁰ See Notice at 3.

CONCLUSION

For all of these reasons, the Commission should take interference challenges into account when examining potential 2 GHz band plans, and examine voluntary measures that will afford 2 GHz MSS licensees the flexibility to better optimize the use of their spectrum to provide wireless broadband.

Respectfully submitted,

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